

CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the above-referenced application:

1 1. (Currently amended) A rate adaptive system for optical fibre-
2 based communication networks comprising:
3 a plurality of optical transceivers capable of transmitting and receiving optical
4 signals at a plurality of rates to each other, and
5 an optical fibre linked to said optical transceivers, said system configured to
6 cause said optical transceivers to transmit and receive optical signals at an initial rate
7 and to adapt said initial rate based upon an error condition responsive to a failure to
8 synchronize a received signal to a transmitted signal by causing said optical
9 transceivers to transmit and receive at a different rate, a rate of data being forwarded
10 per unit time being adjusted by inserting invalid data which can be identified and
11 ignored by a downstream process, wherein said initial rate is lowered according to a
12 predefined percentage of said initial rate in response to said failure to synchronize a
13 received signal to a transmitted signal, said system further comprising an
14 identification mechanism that identifies the rate adaptive system as such when the rate
15 adaptive system is introduced to an optical fibre-based communication network to
16 ~~avoid the overhead associated with auto negotiation methods that operate over a~~
17 ~~control channel.~~

1 2. (Canceled)

1 3. (Previously presented) The system of claim 1, wherein said system
2 is further configured to calculate an error coefficient based on said received signals,
3 and said error condition comprise said error coefficient exceeding a predefined range.

1 4. (Canceled)

1 5. (Previously presented) The system of claim 1, wherein said
2 percentages are selected from the group of 75, 50 and or 25 percent of said initial rate.

1 6. (Previously presented) The system of claim 1, wherein said initial
2 rate is 10 Gb/s.

1 7. (Previously presented) The system of claim 1, wherein said system
2 is configured to operate in an optical Ethernet network.

1 8. (Previously presented) The system of claim 1, wherein said system
2 is further configured to notify a network operator in the event of said error condition.

1 9. (Currently amended) A rate adaptive method for operating an
2 optical communication network, comprising:
3 transmitting data at an initial rate,
4 receiving said data at said initial rate,
5 evaluating said data responsive to a failure to synchronize a received signal to
6 a transmitted signal to determine if an error condition exists,~~and~~
7 adapting said rate based upon said evaluation by transmitting and receiving at
8 a different rate by inserting invalid data which can be identified and ignored by a
9 downstream process, wherein adapting said rate comprises lowering said initial rate
10 according to predefined percentages of said initial rate in response to said failure to
11 synchronize a received signal to a transmitted signal ~~to avoid the overhead associated~~
12 ~~with auto-negotiation over a control channel, and~~
1 identifying the rate adaptive system as such when the rate adaptive system is
2 introduced to an optical fibre-based communication network.

1 10. (Canceled)

1 11. (Previously presented) The method of claim 9, further comprising
2 notifying a network operator in the event of said error condition.

1 12.-13. (Canceled)

1 14. (Previously presented) The system of claim 1, wherein said system
2 is further configured to identify a link in the optical fibre-based communication
3 networks for an upgrade.

1 15. (Previously presented) The method of claim 9, further comprising
2 identifying a link in the optical communication network for an upgrade.